

15-1957-7-9289

Amphibolites and Serpentinities in the Shalginskiy Region and Their
Interrelation (Cont.)

Components	1	2	3	4	5	6	7	8
SiO ₂	44.46	43.9	51.88	43.32	74.5	75.86	72.80	85.30
TiO ₂	0.60	0.4	0.04	1.69	1.43	0.02	0.09	0.07
Al ₂ O ₃	21.86	10.56	17.43	14.20	1.43	0.66	3.06	0.50
Cr ₂ O ₃	0.04	0.1	0.08	0.06	0.2	0.17	0.15	0.44
Fe ₂ O ₃	3.84	4.69	3.91	3.00	9.82	8.75	8.86	5.52
FeO	8.8	7.60	9.52	12.81	--	0.33	0.26	2.56
MnO	0.13	0.23	0.59	2.40	0.05	0.12	--	0.03
MgO	3.22	16.53	5.37	9.36	1.12	4.44	6.26	1.59

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Amphibolites and Serpentinities in the Shalginskiy Region and Their
Interrelation (Cont.)

CaO	12.80	10.09	3.72	4.06	0.67	0.62	0.65	0.59
Na ₂ O	1.33	0.44	0.83	0.68	0.68	0.2	0.15	0.18
K ₂ O	0.27	2.03	2.90	2.33	--	--	--	0.16
P ₂ O ₅	0.06	0.11	--	0.78	--	0.076	0.03	0.07
SO ₃	0.89	0.72	--	0.34	--	0.20	--	0.36
H ₂ O	0.28	0.10	0.29	0.10	3.76	4.38	3.06	0.70
others	2.14	1.80	3.75	5.11	3.47	3.48	4.52	2.38
Total	100.72	99.29	100.31	100.24	97.23	99.30	99.89	100.45

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Amphibolites and Serpentinities in the Shalginskiy Region and Their
Interrelation (Cont.)

1) dark-green medium-grained olivine gabbro, southeastern part of the massif; 2) dark-green coarsely crystalline amphibolite, drill-hole 13, depth 56 m; 3) dark fine-grained amphibolite, drill-hole 3, depth 70 m; 4) black fine-grained amphibolite, drill-hole 7, depth 106 m; 5) dark-green antigoritic opalized serpentinite, pit XI, depth 2 m; 6) dense greenish-brown tremolite-antigorite opalized rock, drill hole 12, depth 16 m; 7) gray-green antigoritic opalized serpentinite, drill-hole 15, depth 24 m; 8) dark-brown weathered listwanite, southeastern part of the massif.

Card 5/5

O. V. Bryzgalin

3(5)

PHASE I BOOK EXPLOITATION

SOV/2880

Bok, Ivan Ivanovich, Academician, Kazakh SSR Academy of Sciences

Nablyudeniya po poleznym iskopayemym pri geologicheskikh issledovaniyakh;
metodicheskiye rekomendatsii. (Observations of Mineral Deposits During
Geological Explorations) Alma-Ata, AN Kazakhskoy SSR, 1957. 53 p.
3,300 copies printed.

Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Institut geologicheskikh nauk.

Resp. Ed.: V.V. Lavrov, Candidate of Geological and Mineralogical Sciences;
Ed.: L.Ya. Kolchigina; Tech. Ed.: Z.P. Rorokina.

PURPOSE: The booklet is intended for field geologists, geologic surveyors, hydro-geologists, and geophysicists. It will also be useful to students of regional geography and to economic planners.

COVERAGE: This booklet presents simple methods for observing and evaluating various mineral deposits, particularly those connected with Pre-Paleozoic gneisses and schists, sedimentary Paleozoic rocks, and igneous intrusive and effusive rocks. Attention is centered on non-metallic minerals. Mineral

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Observations (Cont.)

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search techniques are described. The book is based mainly on data gathered in Kazakhstan and adjacent parts of Central Asia, the Urals and Western Siberia. There are 18 references, all Soviet.

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Observations (Cont.)

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Bok, I.I.

SHCHERBA, G.N.; YERMOLAYEV, K.Ye.; KAYUPOV, A.K.; KIM, V.A.; NIKITINA, L.G.;
FLEROV, Ye.A.; SATPAYEV, K.I., akademik, red.; BOK, I.I., red.;
SEMENOVA, M.V., red.; POPOV, N.D., tekhn.red.

[Geology of the Leninogorsk and Zyryanovsk mine regions in the
Altai Mountains] Geologiya Leninogorskogo i Zyrianovskogo
rudnykh polei na Altae. Pod red.K.I.Satpaeva. Moskva, Gos.
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(MIRA 11:1)

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SATPAYEV, K.I.; BORUKAYEV, R.A.; AKHMEDSAFIN, U.M.; BOK, I.I.; KUSHEV, G.L.;
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 LOMONOVICH, I.I.; LAVROV, V.V.; MEDOYEV, G.TS.; NOVOKHATSKIY, I.P.;
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 M.A.; GAZIZOVA, K.S.; VYITS, B.I.; KHAYRUTDINOV, D.Kh.; MUKHAMEDZHANOV,
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Tireless explorer of the depths of the earth's crust; on the 65th
 birthday and 40th anniversary of the scientific engineering ac-
 tivities of Academician M.P. Rusakov. Vest. AN Kazakh. SSR 13
 no.12:96-97 D '57. (MIRA 11:1)

(Rusakov, Mikhail Petrovich, 1892-)

SATPAYEVA, Taisiya Alekseyevna; BOK, I.I., akademik, otv.red.; GLAZY-
RINA, D.M., red.; ROROKINA, Z.P., tekhn.red.

[Genetic characteristics of deposits of the copper sandstone
type in connection with the mineralogical composition of their
ores] Geneticheskie osobennosti mestorozhdenii tipa medistykh
peschanikov v svyazi s mineralogicheskim sostavom ikh rud. Otv.
red. I.I.Bok. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1958.
240 p. (MIRA 13:4)

1. AN KazSSR (for Bok).
(Ore deposits)

3(5) PHASE I BOOK EXPLOITATION SOV/1986

Ob'edineniye nauchnaya sessiya po metallogenicheskim i prognomnym kartam, Alma-Ata, 1986.

Materialy nauchnoy sessii po metallogenicheskim i prognomnym kartam; doklady. (Materials Presented at the Scientific Session on Metallogenetic and Postulated Ore Occurrence Maps; Reports) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1986. 318 p. Errata slip inserted. 3,850 copies printed.

Ed.: A.S. Pogozhev; Tech. Ed.: P.P. Alferova.

Sponsoring Agencies: (1) Akademiya nauk SSSR, (2) Akademiya nauk Kazakhskoy SSR, Alma-Ata, (3) USSR, Ministerstvo geologii i obratnyy vopr., (4) Kazakh SSR, Ministerstvo geologii i obratnyy vopr.

PURPOSE: This book is intended for exploration geologists, mining engineers, and cartographers.

Materials Presented (Cont.)

CONTENTS: This collection of reports was presented at the United Scientific Session on Metallogeny and Postulated Ore Occurrence Maps convoked by the Academy of Sciences in Alma-Ata, December, 1986. The reports deal with various aspects of compiling metallogenetic and ore occurrence maps as well as the methodology and techniques of correlating geophysical exploration data. Short reports deal only with non-ferrous metals. The reports were read at the session by the following authors: V.Ye. Zakharenko, M.S. Shatskiy, and Yu.K. Goretskiy. References accompany each article.

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BOX, I.I.

Study of complex ores in Kazakhstan during the 40 years of the
Soviet regime. Izv. AN Kazakh. SSR. Ser. geol. no.2:3-13 '58.
(Kazakhstan--Ore deposits)

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BOK, I.I., akademik

~~Valuable monograph~~ Valuable monograph ("Basic problems of ore mining in the mountain regions of Central Asia and Kazakhstan" by I.Z. Lysenko. Reviewed by I.I.Bok). Vest. AN Kazakh. SSR 14 no.8:103-104 Ag '58.

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BOK, I.I., akademik

Genetic classification of surface mineral deposits. Sbor.nauch.
trud.KazGMI no.18:69-89 '59: (MIRA 15:2)

1. Akademiya nauk Kazakhskoy SSR.
(Ore deposits--Classification)

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AVROV, P.Ya.; AYDALIYEV, Zh. A.; AUEZOV, M.O.; AKHMEDSAFIN, U.M.; BATISHCHEV-
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Sixtieth birthday of Academician Kanysh Imantaevich Satpaev. Vest.
 AN Kazakh. SSR 15 no.4:58-61 Ap '59. (MIRA 12:7)
 (Satpaev, Kanysh Imantaevich, 1899-)

BARBOT DE MARNI, Arseniy Viktorovich, kand.geologo-mineral.nauk; BOK,
I.I., otv.red.; KOROTKOVA, Ye.A., red.; SHEVCHUK, T.I., red.;
ALFEROVA, P.F., tekhn.red.

[Deposits of basic building materials in northern Kazakhstan
(in regions of virgin and waste lands); explanatory notes,
cadastral survey, and a map] Mestorozhdeniia osnovnykh stroi-
tel'nykh materialov v severnoi chasti Kazakhstana (v raionakh
tselinnykh i salexnykh zemel'); ob"iasnitel'naya zapiska i
kadastr s kartoi. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR,
1960. 375 p. (MIRA 13:5)
(Kazakhstan--Building materials)

SHADRIN, L.P.; ~~BOK, I.I., akademik~~

Geological and mineralogical description of rocks and ores of the
Inya iron-ore deposit and some problems of its genesis. Sbor.
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1. Akademiya nauk Kazakhskoy SSR (for Bok).
(Tigiretskiy Range--Ore deposits)

BRIZHAK, V.V.; BOK, I.I.; MONICH, V.K., doktor, prof.

Studying the causes of the scattering of the coordinates of twin
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SATPAYEV, K.I.; BOK, I.I.; ZHILINSKIY, G.B.

Problems in the development of metallogeny. Sov. geol. 3
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1. Akademiya nauk KazSSR,
(Ore deposits)

BOE, Ivan Ivanovich, akademik; PARSHIN, Aleksey Vasil'yevich, kand.
geologo-mineral.nauk; KOROTOVSKIY, M.P., red.; ALFEROVA, P.F.,
tekhn.red.

[Mineral resources in Kazakhstan] Poleznye iskopaemye Kazakh-
stana. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1961. 50 p.
(MIRA 14:4)

(Mines and mineral resources)

BOK, I.I.

M.V.Lomonosov and the development of the study of ore formation.
Izv. AN Kazakh.SSR. Ser.geol. no.4:XXXVIII-XLIV '61.

(MIRA 15:3)
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Ore deposits)

ZHUKOV, Pavel Konstantinovich; KAZANIN, Yuriy Ivanovich; KAYUPOV, Aryktay Kayupovich; MURSALINOV, Khakim Ibragimovich; FIGULEVSKIY, Nikolay Arsen'yevich; SHLYGIN, Artem Yevgen'yevich. Prinimali uchastiye: BAYKENEV, Sh.A.; BAYNAZAROVA, G.; MORIN, Ye.S.; KRIKUNOVA, N.P.; SHUKHOV, N.N.; BOK, I.I., akademik, otv. red.; NESTEROVA, I.I., red.; ALFEROVA, P.F., tekhn. red.

[Basic features of the geology and metallogeny of the Koksutokeli area of the Dzungarian Ala-Tau] Osnovnye cherty geologii i metallogeni Koksutokeliiskogo raiona Dzhungarskogo Alatau. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1962. 123 p.

(MIRA 15:11)

1. Institut geologicheskikh nauk (for Zhukov, Kazanin, Kayupov, Pigulevskiy, Shlyginin). 2. Yuzhno-kazakhstanskoye geologicheskoye upravleniye (for Mursalinov). 3. Akademiya nauk Kazakhskoy SSR (for Bok).

(Dzungarian Ala-Tau—Geology, Economic)

GAZIZOVA, Kafiya Sadretdinovna; BOK, I.I., akademik, otv. red.;
KUZNETSOV, Yu.N., red.; ROROKINA, Z.P., tekhn. red.

[Basic characteristics of the geology and mineralogy of the
Gul'shad deposit (central Kazakhstan)] Osnovnye cherty geo-
logii i mineralogii Gul'shadskego mestorozhdeniia [TSentral'-
nyi Kazakhstan). Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR,
1962. 204 p. (MIRA 15:10)
(Kazakhstan--Geology) (Kazakhstan--Mineralogy)

YANULOVA, Marina Konstantinovna; BOK, I.I., akad., otv. red.; SOKOLOV, A.G., red.; ROROKINA, Z.P., tekhn. red.

[Mineralogy of the Karagayly skarn-barite-complex ore deposit (Central Kazakhstan)] Mineralogiia skarnovo-baritopolimetallichesкого mestorozhdeniia Karagaily (TSentral'nyi Kazakhstan) Alma-Ata. Vol.1. [Hypogenic mineralization] Gipogennaia mineralizatsiia. 1962. 240 p. (MIRA 15:5)

1. Akademiya nauk Kazakhskoy SSR (for Bok).
(Karagayly region (Kazakhstan))—Ore deposits)

SATPAYEV, K.I., akademik, otv. red.; BOGATYREV, A.S., red.; BORUKAYEV, R.A., red.; BOK, I.I., red.; RUSAKOV, M.P., red.; MIROSHNICHENKO, L.A., spets.red.; LYAPICHEV, G.F., spets.red.; POGOZHEV, A.S., red.; RZHONDKOVSKAYA, L.S., red.; GASHINA, Ye.A., tekhn. red.

[Productive capacities of Central Kazakhstan] Proizvoditel'-nye sily TSentral'nogo Kazakhstana; trudy. Alma-Ata, Izd-vo AN Kaz. SSR. Vol.2. [Minerals and regional geology] Poleznye iskopaemye i regional'naya geologiya, 1959. 350 p.

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1. Ob'yedinennaya nauchnaya sessiya po problemam razvitiya proizvoditel'nykh sil TSentral'nogo Kazakhstana, Karaganda, 1958.
2. Prezident AN Kaz.SSR (for Satpayev). 3. Ministerstvo geologii i okhrany neдр Kaz.SSR (for Bogatyrev). 4. Institut geologicheskikh nauk AN Kaz.SSR (for Rusakov).

(Kazakhstan--Mines and mineral resources)

(Kazakhstan--Geology)

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[Ili Valley, its nature and resources] Iliiskaya dolina, ee
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(Ili Valley--Physical geography)

BOK, I.I., akademik; SAGUNOV, V.G., kand. geologo-mineral. nauk

Raw material resources for trace element fertilizers in the Kazakh
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(MIRA 18:1)

1. AN Kazakhskoy SSR (for Bok).

BOK, I.I.

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(MIRA 18:5)

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ANKINOVICH, S.G., doktor geol.-miner. nauk, otv. red.;
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[Ores of agricultural importance; fundamentals of their
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Agronomicheskie rudy; osnovy ikh geologii i poiskovo-
otsenochnye priznaki. Alma-Ata, Nauka, 1965. 305 p.
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SATPAYEV, K.I., akademik, glav. red. [deceased]; BOK, I.I., otv.
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TABYLDIYEV, K.T., red.; BRAILOVSKAYA, M.Ya., red.

[Geology and resources of agrochemical raw material of
Kazakhstan] Geologiya i resursy agrokhimicheskogo syr'ia
Kazakhstana. Glav. red. K.I. Satpaev. Alma-Ata, "Nauka,"
Kazakhskoi SSR, 1965. 214 p. (MIRA 19:1)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut geo-
logicheskikh nauk.

BOK, M.F.

Characteristics of the development of the esophagus in man and
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1437-1440 F '65. (MIRA 18:2)

1. Astrakhanskiy gosudarstvennyy meditsinskiy institut. Submitted
May 21, 1964.

BOK, N.B.; ZVYAGINTSEV, D.I.; ROTIN, Ya.F.; AZHOREN, A.A., red.

[Overall mechanization of livestock farms in virgin regions] Kompleksnaya mekhanizatsiya zhivotnovodcheskikh ferm v tselinnykh rayonakh. Moskva, Kolos, 1964. 127 p.
(MIRA 18:1)

BOK, N.B., kand. tekhn. nauk

Determining the adjustment angle of the working parts of rotary
cultivators. Trakt. i sel'khoz mash. no.9:23-24 S '64.
(MIRA 17:11)

1. TSelinogradskiy sel'skokhozyaystvennyy institut.

BCK, N.B., kand. tekhn. nauk

Determining basic parameters for rototillers. Trakt. i sel'khoz mash.
no.7:30-32 J1 '65. (MIRA 18:7)

1. TSelinogradskiy sel'skokhozyaystvennyy institut.

BAK, N.I.

GAZIZOVA, Kafiya Sadretdinovna; BOK, M.I., red.; SEMENOVA, M.V., red.
izd-va; KRYNOCHKINA, K.V., tekhn.red.

[Structural geology and genetic characteristics of the Kounrad
copper deposits] Geologo-strukturnye i geneticheskie osobennosti
mednogo mestorozhdeniia Kounrad. Moskva, Gos.nauchno-tekhn.
izd-vo lit-ry po geoli okhrane nedr, 1957. 129 p. (MIRA 11:1)
(Karaganda Province--Copper ores)

S/194/62/000/012/012/101
D201/D308

AUTHOR: Bóka, András

TITLE: Analog-to-digital converter

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 12, 1962, 53, abstract 12-1-106 shch (Hung. pat.,
cl. 42m, 14, no. 148818, Dec. 15, 1961)

TEXT: The proposed circuit consists of several magnetic core switches connected in series. The input windings of all cores have different numbers of turns and are connected in series. The combination of magnetic states of cores depends on the magnitude of the input voltage. At a predetermined instant a read-out pulse common to all cores is applied, the output signals being produced only in output windings of those cores whose polarity was previously reversed. 2 figures. [Abstracter's note: Complete translation.]

Card 1/1

S/194/62/000/011/001/062
D201/D308

9.7100

AUTHORS: Bóka, András and Ladányi, József

TITLE: A logic system using ferrites and diodes

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 11, 1962, 12, abstract 11-1-23y (Tájékoztató. Magyar tud. akad. számítástechn. közp., 1961, no. 7, 111-126, 11, 17, 22 (Hung.; summaries in Rus., Ger. and Eng.))

TEXT: This is a communication on a standard logic circuit using ferrites and diodes, as developed at the computer center of the Hungarian Academy of Sciences. Fundamental reasons and requirements of the design are given and the principle of operation is described. Examples of synthesis of complex logic functions using the above circuits are given. Simple symbolic designation of bloc-circuit diagrams is introduced side by side with the so-called 'image' Kar-naugh symbols. It is shown that the first samples of logical MAG-LOGAL cells operate in push-pull at a comparatively low frequency

Card 1/2

A logic system ...

S/194/62/000/011/001/062
D201/D308

(50 kc/s). It is also stated that Boolean functions can be readily realized by combining the MAGLOGAL cells with one, two or three inputs. The results of experimental investigation of the ferrite and diode logic system are given which show its high degree of reliability. It is also stated that MAGLOGAL cells are easily combined with other devices. 10 figures. [Abstracter's note: Complete translation.] ✓

Card 2/2

BOKA, Andras

Dynamic measuring method for testing transfluxor elements.
Meres automat 12 no.4/51148-150 '64.

1. Computing Center, Hungarian Academy of Sciences,
Budapest.

BOFA, I.

"Organizational Problems of the Gazda Movement" P. 24. (TOCHTERHELES,
Vol. 7, No. 3, Mar. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, (FEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

BOKACH-POLGAR, E. [Bakacs-Polgar, E.]; KURTS-CHIKI, I. [Kurcz-Csiky, I.]

Simple method for the isolation of radioactive strontium and
barium. Zhur.anal.khim. 18 no.10:1206-1210 O '63. (MIRA 16:12)

1. Institut zdravookhraneniya, Budapesht, Vengriya.

L 00799-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6026371 (A) SOURCE CODE: UR/0075/66/021/005/0558/0560

AUTHOR: Bokach-Polgar, E. ; Kurts-Chern, I 35

ORG: Institute of Public Health, Budapest, Hungary (Institut zdravookhraneniya) B

TITLE: Determination of radioactive strontium¹⁷ in atmospheric precipitations

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 5, 1966, 558-560¹⁹

TOPIC TAGS: radioactive strontium, strontium, yttrium, atmospheric precipitation, strontium oxalate, yttrium oxalate

ABSTRACT: A simple and rapid method has been developed for routine determination of radioactive strontium in atmospheric precipitation without separation of barium. The ⁹⁰Sr to ⁸⁹Sr ratio is determined after yttrium has been separated by the simple and rapid method based on the different solubilities of yttrium and strontium oxalates in acid solutions which the author suggests. Orig. art. has: 1 figure and 2 tables. [Based on authors' abstract] [NT]

SUB CODE: 07/ SUBM DATE: 15Dec64/ ORIG REF: 001/ SOV REF: 001/
OTH REF: 005/

Card 1/1 mjs

UDC: 543.52

BOKACHEV, N.G.

Background toning of political and administrative maps. Geod. i
kart. no. 4:39-46 Ap '57. (MIRA 10:8)

(Cartography)

BOKACHEV, N. G.: Master Tech Sci (diss) -- "Problems of the harmony of colors in the color design of the backgrounds of political, political-administrative, and administrative table maps". Voronezh, 1959. 17 pp (Min Higher Educ USSR, Moscow Inst of Engineers of Geodesy, Aerial Photography, and Cartography), 150 copies (KL, No 13, 1959, 104)

BOKACHEV, N.G., starshiy prepodavatel'

Classification of political, politico-administrative, and
administrative maps by their type of coloration. Izv. vys.
ucheb. zav.; geod. i aerof. no.2:129-134'61. (MIRA 14:6)

1. Voronezhskiy gosudarstvennyy universitet.
(Maps)

BOKACHEV, N.G.

Color maps of the landscape types and physicogeographical regions
of the Central Black Earth Region. Izv.Vor.otsd.Geog.ob-va
no.3:97-100 '61. (MIRA 15:11)
(Central Black Earth Region--Physical geography--Maps)

BORISOVA, N.P.; BOKACHEVA, L.P.

Determination of the structure of polymers by the MO LKAO method.
Vest. LGU. 18 no.16:120-126 '63. (MIRA 16:11)

BOKACHEVA, L.P.; POPKOV, K.K.; TABOLINA, L.N.

Calculating the spatial distribution of dosed fluxes of
captured gamma radiation. Inzh.-fiz. zhur. 6 no.11:85-89
N '63. (MIRA 16:11)

L 19586-63 EPF(c)/ENT(1)/EPF(n)-2/ENT(m)/BDS AFFTC/ASD/AFWL/SSD
Pr-4/Pu-4

ACCESSION NR: AP3006490

S/0170/63/006/009/0047/0051

2613

AUTHOR: Bokacheva, L. P.; Kiselev-Fedorov, V. P.; Popkov, K. K.;
Rubanov, S. M.

TITLE: Problem of calculating heat release by gamma components

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 6, no. 9, 1963, 47-51

TOPIC TAGS: nuclear reactor, Gamma radiation, thermal shielding,
heat release, scattered Gamma radiation, capture Gamma radiation,
radiative capture, water water reactor, reactor vessel, buildup
factor

ABSTRACT: A simplified method is proposed for calculating the
heat generated by capture γ -radiation in the thermal shielding and
reactor-vessel material of a water-water reactor. The method is
based on hypothetical substitution of the water layers located be-
tween the shieldings by equivalent layers of steel; the calculations
are then carried out using the buildup factor for scattered γ -
radiation for homogeneous iron shielding. Tests showed that for

Cord 1/2

L 19586-63

ACCESSION NR: AP3006490

iron 1 cm thick, the error does not exceed 1%. Graphs of the
heat flux generated by capture γ -radiation in iron and water are
presented. Orig. art. has: 3 figures and 5 formulas.

ASSOCIATION: none

SUBMITTED: 04Jan63

DATE ACQ: 30Sep63

ENCL: 00

SUB CODE: NS

NO REF SOV: 006

OTHER: 001

Card 2/2

BOKALOV, A. K.

Fruit Culture

Orchard of the Molotov Collective Farm. Sad i og. No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

USSR/Soil Science. Organic Fertilizers.

J-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24797.

Author : Bokan', V.I.

Inst :

Title : Activity of Phosphoro-Bacterin on a Basis of
Mineral Fertilizers.

Orig Pub: Sb. nauchno-issled. rabot. stud. Stavropol'sk.
s.-kh. in-t, 1956, vyp. 4, 34-35.

Abstract: No abstract.

Card : 1/1

BOKANENKO, L.I.

Determining frequency and phase characteristics of electrodynamic seismic receptors by means of auxiliary excitation coils. Izv.AN SSSR Ser.geofiz. no.7:776-793 J1 '56. (MLRA 9:9)

1.Akademiya nauk SSSR, Geofizicheskiy institut.
(Seismometers)

BERZON, Inna Solomonovna; BOKANENKO, Lev Ivanovich; ISAYEV, Vasilii
Semenovich; SHCHUKINA, Ye.P., red.; BRUZGULS, V.V., tekhn.red.

[Seismic studies on the Tuyuksu Glacier] Seismicheskie
issledovaniia na lednike Tuiuksu. Moskva, Izd-vo Akad.nauk
SSSR, 1959. 66 p. (Akademiia nauk SSSR. Mezhdunarodnyi
komitet po provedeniiu Mezhdunarodnogo geofizicheskogo goda
seismicheskie issledovaniia, no.2). (MIRA 13:2)
(Tuyuksu Glacier--Seismology--Observations)

PHASE I BOOK EXPLOITATION

SOV/3560

Akademiya nauk SSSR. Institut fiziki zemli

Seysmicheskaya razvedka (Seismic Prospecting) Moscow, Izd-vo AN SSSR, 1959.

374 p. (Series: Its: Trudy, No. 6 /173/) Errata slip inserted. 1,500 copies printed.

Ed.: I.S. Berzon, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: L.I. Ratnikova; Tech. Ed.: V.V. Volkova.

PURPOSE: The publication is intended for geologists and geophysicists, particularly for those interested in the study of seismic waves and their use in geological prospecting.

COVERAGE: This is a collection of 17 articles published by the Academy of Sciences USSR as transactions of the Institute of Physics of the Earth. The first four articles present mainly an analysis of amplitudinal properties of waves. The second group of four articles deals with problems of frequency analysis of seismic waves. The remaining articles cover a wide field of problems in seismology such as methods of interpretation of dynamic properties of waves,

Card 1/4

Seismic Prospecting

80V/3560

observation of reflected latitudinal waves, design of high-frequency seismic instruments, etc. References are given at the end of each article.

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Card 3/4

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283

Bokanenko, L.I. Problems of the Control of Sensitivity in Channels Recording Seismic Vibrations

320

Melamud, A.Ya. and N.S. Shipilin. High-Frequency Seismic Instruments

336

Sorokhtin, O.G. Multichannel Supersonic Pulse Seismoscope

354

AVAILABLE: Library of Congress

Card 4/4

TN/mas
5-16-60

BOKANENKO, L.I.; ISAYEV, V.S.

Preliminary results of the determination of the ice depth of Mount Elbrus
using the seismic method. Inform.sbor. o rab.Geog.fak.Mosk.gos.un. po
Mezhdunar.geofiz.godu. no.5:10-58 '60. (MIRA 16:3)
(Elbrus, Mount—Ice)

BOKANENKO, L.I., mladshiy nauchnyy sotrudnik; AVSYUK, Yu.N., mladshiy
~~nauchnyy sotrudnik~~

Subglacial relief and the thickness of the Lazarev Shelf Ice.
Inform.biul.Sov.antark.eksp. no.44:43-48 '63. (MIRA 17:4)

1. Institut fiziki Zemli imeni O.Yu.Shmidta AN SSSR.

BOKANENKO, L.I.

Determining the frequency characteristics of ultrasonic
transducers. Izv. AN SSSR. Fiz. zem. no.12:53-55 '65.
(MIRA 19:1)

1. Institut fiziki Zemli AN SSSR. Submitted June 11, 1965.

U 32731-66 EWP(j)/EWT(1)/EWT(m)/T RM/GW

ACC NR: AP6010818

(N)

SOURCE CODE: UR/0387/65/000/012/0053/0055

AUTHOR: Bokanenko, L. I.

ORG: Institute of Physics of the Earth, Academy of Sciences, SSSR (Institut fiziki zemli, Akademiya nauk SSSR)

TITLE: Determination of the frequency characteristics of ultrasonic sensors

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 12, 1965, 53-55

TOPIC TAGS: ultrasonic sensor, frequency characteristic, circuit design, *seismic modeling, seismic wave*

ABSTRACT: The author proposes a method of determining the frequency characteristic of ultrasonic sensors for modeling seismic wave processes. The method is based on a comparison of the amplitude and phase frequency characteristics of the investigated sensor with corresponding characteristics of an inertialess capacitor receiver of ultrasonic oscillations. The plates of the capacitor receiver are thin strips of metal foil glued opposite one another on both sides of the plexiglas sheet of a two-dimensional model. A longitudinal wave excited by a radiator causes a change in the thickness of the model's material and consequently a change in the distance between the plates of the measuring

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UDC: 534.647

L 32731-66

ACC NR: AP6010818

3

capacitor, resulting in the generation of a voltage directly proportional to displacement across the tube grid. Since the plates of the capacitor have a very small mass and are glued directly to the material of the model, the presence of the capacitor does not distort the wave field in the model, i.e., the capacitor receiver is an inertia-free pickup of the displacements caused by the longitudinal wave. To determine the amplitude and phase characteristics of the ultrasonic sensors, the radiator excites a wave field which is recorded on the seismoscope by means of the capacitor and the investigated receivers. From the obtained recordings the ratio amplitudes and the difference of phases of the recordings of these receivers are determined for a sequence of frequencies. If the investigated receiver records the displacement of the wave field, then the obtained ratios are the sought frequency characteristics of the investigated receiver. If the investigated receiver records the amplitude component of the wave field, it is necessary to change from the displacement component of the capacitor receiver to the amplitude component. The author expresses his thanks to L. L. Khudzinskiy, I. S. Parthomenko, and V. A. Obukhov whose advice helped to set up the program of investigations. Orig. art. has: 3 figures and 1 formula.

SUB CODE: 09,⁰⁸ / SUBM DATE: 11Jun65 / ORIG REF: 005 / OTH REF: 002

Card 2/2 JS

L 08041-67 EWT(1) GW

ACC NR: AP7001655

SOURCE CODE: UR/0387/66/000/006/0083/0087

AUTHOR: Bokanenko, L. I.ORG: Institute of Physics of the Earth, AN SSSR (Institut fiziki Zemli AN SSSR)TITLE: Spectrum analyzer for ultrasonic pulsesSOURCE: AN SSSR. Izvestiya. Fizika zemli, no. 6, 1966, 83-87TOPIC TAGS: spectral analyzer, ultrasonic equipment

ABSTRACT: The A-65 amplitude spectrum analyzer has been developed for increasing the accuracy of analysis of ultrasonic pulses. The apparatus is fully described in this paper, which is accompanied by a block diagram and highly detailed circuit diagram which serves as the basis for most of the textual description. Essentially it is an electronic heterodyne analyzer of periodically repeating pulses (frequency of 25-200 cps) in the frequency range 10-250 kc/sec. The A-65 is designed for obtaining a frequency amplitude spectrum of ultrasonic pulses recorded with ultrasonic apparatus such as a LS-1 seismoscope. Three channels are used for feeding from the seismoscope to the analyzer: a signal containing the part of the record for analysis; synchronizing pulses; time mark. Comparison of the spectra obtained with the A-65 revealed that after taking into account the measurement accuracy in determining amplitudes from photographs of the spectra, which is 0.2 mm, the accuracy of analysis at frequencies above 10 kc/sec is not worse than $\pm 3\%$. In the frequency range 0-10 kc/sec the accuracy of analysis deteriorates. The scheme for the apparatus was suggested by G. M. barkovskiy and P. F. Frolovyy. Orig. art. has: 4 figures and 1 table. [JPRS: 38,230]

SUB CODE: 20 / SUBM DATE: 11Jun65 / ORIG REF: 009

Card 1/1 mc

UDC: 534.64

0924 1418

ACC NR: AP6003337

SOURCE CODE: UR/0387/66/000/001/0066/0075

AUTHOR: Bokanenko, L. I.

ORG: Institute of Physics of the Earth im. O. Yu. Shmidt, Academy of Sciences SSSR (Institut fiziki Zemli Akademii nauk SSSR)

TITLE: An ultrasonic transducer based on a bimorph

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 1, 1966, 68-75

TOPIC TAGS: piezoelectric transducer, ultrasonic seismic equipment, seismologic instrument, seismic modeling, seismometer

ABSTRACT: The author describes an ultrasonic point-contact transducer (receiver or transmitter) developed by the Department of Seismic Prospecting Methods at the Institute of Physics of the Earth AS SSSR. The device (KTK) uses the bending deformation of a bimorph which makes direct point contact with the vibrating medium. The instrument is designed for ultrasonic seismic studies in solid media. The bimorph has dimensions smaller than the length of the waves to be registered. When the transducer operates as a receiver, it may be used for recording any of the components of the wave field observed in the medium. A diagram of the unit is shown in the figure. One end of the bimorph 1 is fastened in holder 7. The

UDC: 534.64

Cord 1/3

0914 0302

ACC NR: AP6003337

other end is made in the form of a pyramid whose vertex is supported

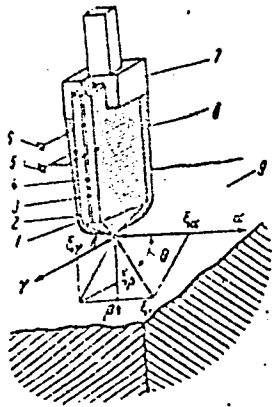


Fig. 1. Bi-morph transducer

by the medium to be studied 9. A metal interlayer 4 is placed between the plates of the bimorph to give the cell greater mechanical strength. Lead 5 is formed by the outer liners of the cell 2-3. A second lead 6 is connected to the metal plate which makes electrical contact with the inner liners of the bimorph. A layer of elastic material 8 is applied to the bimorph for damping the natural oscillations of the cell. The directional pattern of the point-contact bimorph receiver has the same shape as that of an ordinary seismic detector. In the ultrasonic frequency range, below the normal zero mode of the bimorph, the

transducer has linear and parallel frequency axes, amplitude-frequency and phase-frequency responses, and operates for all practical purposes like a wide-band displacement rate meter. The point-contact bimorph

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ACC NR: AP6003337

receiver is sufficiently accurate for many ultrasonic seismic studies using ordinary seismometers. This type of instrument opens up new possibilities for ultrasonic seismic research, and at the same time increases the accuracy of current studies. This transducer can also be used as an ultrasonic radiator. In this case, it operates as a lumped-constant source. However, the efficiency of the point-contact bimorph transmitter is considerably lower than that of presently used piston-type radiators based on Rochelle salt. The author is grateful to V. B. Tsukernik, I. S. Parkhomenko, L. L. Khudzinskiy and V. T. Makeyev whose advice and assistance were helpful in carrying out this research program. Orig. art. has: 9 figures. [14]

SUB CODE: 08, 09/ SUBM DATE: 11JUN65/ ORIG REF: 012/ OTH REF: 003/ ATD PRESS: 5011

Card 3/3

BOKANEV, N.

BOKANEV, N.

Improving the design of the SUB-3 automatic meat dumpling machine.
Mias. Ind. SSSR. 25 no.3:52-53 '54. (MIRA 7:7)

1. Rostovskiy-na-Donu myasokombinat.
(Meat industry)

L 38594-65 EWT(m)/EPP(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5011034

UR/0079/64/034/011/3849/3849

AUTHOR: Stepanov, B. I.; Bokanov, A. I.

TITLE: p-carbethoxyphenyldiethylphosphine

SOURCE: Zhurnal obshchey khimii, v. 34, no. 11, 1964, 3849

KEY TAGS: organic phosphorus compound, chlorine, chlorinated organic compound

Abstract: An aliphatic-aromatic phosphine with an electrophilic substituent in the ring: p-carbethoxyphenyldiethylphosphine, was prepared for the first time by replacement of chlorine on the carbethoxy group of p-chlorophenyldiethylphosphine, prepared by reaction of p-chlorophenyldiethylphosphine with ethyl magnesium bromide. The molecular refraction, refractive index, and infrared spectra of the product are discussed. The phosphine was converted to p-carbethoxyphenyldiethylphosphonium picrate as a demonstration of its basicity.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut
(Moscow Chemicotechnological Institute)

SUBMITTED: 04Jul64

ENCL: 00

SUB CODE: 00, 00

NO REF SOV: 001

OTHER: 001

JPRS

Card 1/1 *ic*

L 32655-05 EWT(m)/EPF(c)/T/EMP(j) Pc-L/Pr-L RM
ACCESSION NO. AP5005554 S/0079/65/035/002/0050/0352

AUTHOR: Bokanov, A. I.; Plakhov, V. A.

TITLE: Synthesis of p-chlorophenyldichlorophosphine

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 350-352

TOPIC TAGS: phosphine, phenyldichlorophosphine, chlorobenzene

ABSTRACT: A method has been developed for separating p-chlorophenyldichlorophosphine from the isomeric mixture obtained by Baldwin (ref. Zh. obshch. khim. 3547, 1961) from chlorobenzene, phosphorus trichloride and hydrogen chloride. Hydrolysis in a boiling ethanol-hydrochloric acid mixture gave a 100% yield of p-chlorophenylphosphorous acid. The acid was esterified at room temperature with phosphorus trichloride to give p-chlorophenyldichlorophosphine after vacuum rectification. Infrared spectra showed that the initial isomers contain mainly the p-isomer, whereas the isomers obtained by the reaction of a mixture of equal amounts of p- and o-isomers. The total yield of purified p-isomer was 50-55%. Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut imeni D. I. Mendeleeva (Moscow chemical engineering institute)

Card 1/2

L 32655-65

ACCESSION NR: AP5005554

SUBMITTED: 09Sep63

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 006

Card 2/2

STEPANOV, B.I.; BOKANOV, A.I.

Conjugation capacity of phosphonyl groups. Zhur. ob. khim. 35
no.6:1124-1125 Je '65. (MIRA 18:6)

1. Moskovskiy khimiko-tekhnologicheskoy institut imeni
Mendeleeva.

STEFANOV, N.I.; POKHANY, A.I.

Conjugation capacity of phosphonyl groups. Khim. ob. khim. 35
no.7:1315 J1 '65. (MIRA 18:8)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.
Mendeleyeva.

BOKANOV, A.I.; KOROLEV, B.A.; STEPANOV, B.I.

Basicity of phosphines and the electronic properties of some
organophosphorus groups. Zhur. ob. khim. 35 no.10:1879-
1880 O '65. (MIRA 18:10)

1. Moskovskiy khimiko-tehnologicheskiy institut imeni D.I.
Mendeleyeva.

L 36496-66 EWT(m)/EWP(1) RM

ACC NR: AP6027088

SOURCE CODE: UR/0079/65/035/010/1879/1880

AUTHOR: Bokanov, A. I.; Korolev, B. A.; Stepanov, B. I.ORG: Moscow Chemical Engineering Institute im. D. I. Mendeleev (Moskovskiy khimiko-tekhnologicheskii institut)TITLE: Basicity of phosphines and electronic properties of certain organo-phosphorus groups

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1879-1880

TOPIC TAGS: organic phosphorus compound, electric property, titrimetry, nitromethane, ionization, atom, phenyl compound, electron donor

ABSTRACT: Potentiometric titration in nitromethane at 25°C was used to determine the ionization constants $pK_a(H_2O)$ of a series of tertiary phosphines: $(C_2H_5)_3P$ 8.86, $(C_2H_5)_2PC_6H_5$ 6.41, $n-(C_2H_5)_2PC_6H_4Cl$ 5.68, and $P(C_6H_5)_3$ 2.61. The ionization constants of phosphines with aryl and ethyl substituents on the phosphorus are accurately described by the equation: $pK_a = -4.606 - 4.094 \sum \sigma_p$.

where σ_p are the Kabachnik constants. The applicability of the latter to the calculation of ionization constants of aryl-substituted phosphines means that the free electron pair of the

Card 1/2

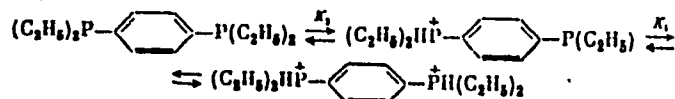
UDC: 543.257.1+547.241+547.558.1

0711 0008

L 36496-66

ACC NR: AP6027088

phosphorus atom in the phosphino group in the basic (unexcited) state is not conjugated with the π system of the aryl group. Having determined both ionization constants of p-phenylenebisdiethylphosphine, pK_a^1 3.35, pK_a^2 6.57, "



the authors found the values of σ_p for the p-diethylphosphinophenyl and p-diethylphosphonium phenyl groups. The electron-donor property of the diethylphosphino group was found to be weak. The electron-acceptor property of the p-diethylphosphonium phenyl group is approximately the same as that of the p-ammonium phenyl groups.

Orig. art. has: 1 formula. [JPRS: 36,328]

SUB CODE: 07 / SUBM DATE: 03May65 / ORIG REF: 002 / OTH REF: 002

Card 2/2MLP

MALAKHOV, P.M. , kand. tekhn. nauk; BOKANOV, M.V., inzh.

Starting a synchronous motor with rigidly connected exciter by means of manually operated VMG oil circuit breakers. Izv. vys. ucheb. zav.; energ. no. 1:65-72 Ja '58. (MIRA 11:7)

1. Bryanskiy institut transportnogo mashinostroyeniya.
(Electric motors, Synchronous)
(Electric circuit breakers)

BOKANOV, N.V. (g. Beshitsa Bryanskoy oblasti).

Energy users in a three-phase circuit. Fiz.v shkole 16 no.1:
59-61 Ja-Fe ' 56. (MLRA 9:3)
(Electric currents, Alternating --Polyphase)

C.A.

Synthesis of some alkoxyhalophenoxyacetic acids and derivatives. S. S. Namethin, K. S. Bakarev, and N. N. Mel'nikov (Timiryazev Plant Physiol. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 77, 410-22 (1951).—A series of substituted phenoxyacetic acids (I) were prepd. for tests as to fungicidal and bactericidal substances and surfact-active agents. These were prepd. by condensation of appropriate phenolates with salts or esters of halo-substituted acids; $\text{ClCH}_2\text{CONH}_2$ gave the corresponding amides. The following I were obtained: *1-Alkoxy-2,3-dichloro*: alkoxy = MeO, 100%, m. 132° (from C_6H_5); EtO, 93.1%, m. 143° (from CH_2Cl_2); PrO, 93.6%, m. 80° (from petr. ether); BuO, 91%, m. 100° (from petr. ether). *2-Alkoxy-1,3-dibromo*: MeO, 95.1%, m. 102° (from CH_2Cl_2); EtO, 96%, m. 131° (from CH_2Cl_2); PrO, 95.1%, m. 119° (from CH_2Cl_2); BuO, 93.4%, m. 70° (from petr. ether). *4-Alkoxy-2-chloro*: MeO, 91.8%, m. 130° (from aq. MeOH); EtO, 73.9%, m. 145° (from aq. MeOH); PrO, 85%, m. 125° (from aq. MeOH); BuO, 80%, m. 87° (from aq. MeOH); iso-AmO, 75.8%, m. 100° (from petr. ether). *4-Alkoxy-3-bromo*: MeO, 87.5%, m. 138° (from MeOH); EtO, 80.7%, m. 138° (from MeOH); PrO, 72.7%, m. 139° (from MeOH); BuO, 71.5%, m. 100° (from petr. ether); iso-AmO, 64.1%, m. 75° (from petr. ether). *o-(4-Alkoxy-2-chlorophenoxy)butyric acids*, prepd. similarly: MeO, 80.8%, m. 94° (from petr. ether); EtO, 70.5%, m. 86° (from C_6H_5 -petr. ether); PrO, 72%, m. 61° (from petr. ether); BuO, 70.5%, m. 78° (from petr. ether); iso-AmO, 75.4%, m. 75° (from petr. ether). *4-Alkoxy-2-bromo*: MeO, 81%, m. 101.5° (from C_6H_5 -petr. ether); EtO, 73.7%, m. 87° (from petr. ether); PrO, 67.3%, m. 60° (from petr. ether); BuO, 71.5%, m. 60° (from petr. ether); iso-AmO, 73%, m. 81° (from petr. ether). Following α -(4-alkoxy-2-chlorophenoxy)acetamides: MeO, 83.8%, m. 127° (from aq. MeOH); EtO, 55.1%, m. 137° (from aq. MeOH); PrO, 52%, m. 105.6° (from aq. MeOH); BuO, 64.7%, m. 93° (from petr. ether); iso-AmO, 62%, m. 95° (from petr. ether). α -(4-Alkoxy-2-bromophenoxy)acetamides: MeO, 55.1%, m. 130.5° (from aq. MeOH); EtO, 63.3%, m. 120° (from CH_2Cl_2); PrO, 66%, m. 131° (from CH_2Cl_2); BuO, 63%, m. 112° (from CH_2Cl_2); 4-iso-AmO, 63.3%, m. 100° (from C_6H_5 -petr. ether). G. M. Kosolapoff

BA
A II

Synthesis of some halogenoalkoxyphenoxycetic acids and their derivatives. S. S. Namethin, K. S. Zhukarev, and N. N. Melnikov (C. R. Acad. Sci. U.R.S.S., 1991, 77, 419-422).—The compounds 6 : 3 : 4 : 1-OR-C₆H₃X₂-O-CH₂-CO₂H, 4 : 2 : 1-OR-C₆H₃X₂-O-CH₂-CO₂H, 4 : 2 : 1-OR-C₆H₃X₂-O-CH₂-CO₂NH₂, and 4 : 2 : 1-OR-C₆H₃X₂-O-CH₂-CO₂H (X=Cl, Br; R=Me, Et, *i*Pr, Bu, *iso*-C₄H₉) are prepared by the general reaction (no experimental details given): NaOAr + ClRX-CO₂H → OAr-CH₂-CO₂H + NaX, where Ar is C₆H₃X₂-OR or C₆H₃X₂-OR, X is Cl or Br, and R is H or alkyl.

The following substituted phenoxycetic acids are described: 3 : 4-dichloro-6-methoxy- (100), m.p. 182°; 3 : 4-dichloro-6-ethoxy- (93-1), m.p. 143°; 3 : 4-dichloro-6-*n*-propoxy- (95-6), m.p. 86°; 3 : 4-dichloro-6-*n*-butoxy- (91), m.p. 103°; 3 : 4-dibromo-6-methoxy- (98-1), m.p. 162°; 3 : 4-dibromo-6-ethoxy- (96), m.p. 153°; 3 : 4-dibromo-6-*n*-propoxy- (96-1), m.p. 119°; 3 : 4-dibromo-6-*n*-butoxy- (93-4), m.p. 70°; 2-chloro-4-methoxy- (93-8), m.p. 139° [amide (93-8), m.p. 127°]; 2-chloro-4-ethoxy- (73-9), m.p. 145° [amide (55-1), m.p. 137°]; 2-chloro-4-*n*-propoxy- (85), m.p. 125° [amide (82), m.p. 108–108°]; 2-chloro-4-*n*-butoxy- (80), m.p. 87° [amide (64-7), m.p. 93°]; 2-chloro-4-*isopropoxy*- (78-8), m.p. 100° [amide (62), m.p. 95°]; 2-bromo-4-methoxy- (93-5), m.p. 138° [amide (55-1), m.p. 150-5°]; 2-bromo-4-ethoxy- (80-7), m.p. 158° [amide (63-3), m.p. 150°]; 2-bromo-4-*n*-propoxy- (72-7), m.p. 139° [amide (66), m.p. 131°]; 2-bromo-4-*n*-butoxy- (71-5), m.p. 100° [amide (65), m.p. 112°]; and 2-bromo-4-*isopropoxy*-phenoxycetic acid (64-1°), m.p. 78° [amide (63-3°), m.p. 109°]. The following substituted 1-phenylpropene-1-carboxylic acids are also described: 1-2'-chloro-4'-methoxy- (80-9), m.p. 96°; 1-2'-chloro-4'-ethoxy- (70-5), m.p. 86°; 1-2'-chloro-4'-*n*-propoxy- (72), m.p. 61°; 1-2'-chloro-4'-*n*-butoxy- (70-6), m.p. 78°; 1-2'-chloro-4'-*isopropoxy*- (78-4), m.p. 75°; 1-2'-bromo-4'-methoxy- (83), m.p. 101-8°; 1-2'-bromo-4'-ethoxy- (73-7), m.p. 87°; 1-2'-bromo-4'-*n*-propoxy- (67-3), m.p. 80°; 1-2'-bromo-4'-*n*-butoxy- (74-8), m.p. 69°; and 1-2'-bromo-4'-*isopropoxy*-phenoxycetic acid (75°), m.p. 81°. R. Tauson

CA

Synthesis of some others of halohydroquinones and halo-pyrocatechols. S. S. Naroskin, K. S. Bokarev, and N. N. Mel'nikov. *Doklady Akad. Nauk S.S.S.R.* 77, 293-6 (1951).—Chlorination of hydroquinone ethers by SO_2Cl_2 or Cl in CHCl_3 gave the Cl deriva. (largely of 2- Cl). Bromination in CHCl_3 gave the Br deriva., also, as expected, largely the 2- Br isomers. The products are characterized by analysis and phys. constants only. Chlorination of *p*- $\text{ROC}_6\text{H}_4\text{OH}$ by SO_2Cl_2 gave the following Cl deriva. (R, yield (%), b.p., etc., given): *Me*, 64.1, bp 97-103°; *Et*, 75.3, bp 117-18°, d_4^{20} 1.2502, n_D^{20} 1.5451; *Pr*, 83.5, bp 130-2°, d_4^{20} 1.1933, n_D^{20} 1.5391; *Bu*, 84.9, bp 136-8°, d_4^{20} 1.1638, n_D^{20} 1.5328; *iso-Am*, 86.4, bp 144-6°, d_4^{20} 1.1423, n_D^{20} 1.5272. The corresponding Br deriva.: *Me*, 90.6, m. 45°, bp 113-15°; *Et*, 80.7, bp 127-40°, d_4^{20} 1.5013, n_D^{20} 1.5708; *Pr*, 88.8, bp 151-4°, d_4^{20} 1.4546, n_D^{20} 1.5126; *Bu*, 89.2%, bp 156-60°, d_4^{20} 1.3783, n_D^{20} 1.5499; *iso-Am*, 90.4, bp 164-7°, d_4^{20} 1.3187, n_D^{20} 1.5420. Similar halogenations of ethers of pyrocatechol gave 4,6-di- Cl or di- Br deriva., but insufficient of halogenating agents gave inseparable mixts. of isomers. The following 4,6-di- Cl deriva. were obtained from *o*- $\text{ROC}_6\text{H}_4\text{OH}$: *R* = *Me*, 79.4, m. 72°, bp 140-80°; *Et*, 81.1, m. 71°; *Pr*, 72.3, m. 87°, bp 164-80°; *Bu*, 81.5, m. 48°, bp 164-74°; *iso-Am*, 83.2, bp 162-5°, d_4^{20} 1.1631, n_D^{20} 1.5267. 4,6-di- Br analogs: *Me*, 96.8, m. 93°; *Et*, 87, m. 97°; *Pr*, 90.7, m. 66°; *Bu*, 90, m. 62°; *iso-Am*, 85.1, bp 202-4°, d_4^{20} 1.5041, n_D^{20} 1.5004. The products were prepd. for tests as fungicides and bactericides. G. M. Komolapoff

Structure and physiological activity of some substituted phenoxyalkylcarboxylic acids on plants. N. N. Mel'nikov, R. Kh. Turetskaya, and K. S. Bokarev (K. A. Timiryazev Inst. Plant Physiol., Moscow). *Doklady Akad. Nauk S.S.S.R.* 60, 921-3 (1963).—Tests with a large no. of substituted phenoxyalkylcarboxylic acids showed that an RO group attached to the Ph nucleus slightly raised the growth rate (kidney-bean cutting) and that a MeO gave a variable effect, the meta position giving the highest activity and the 2-position giving the lowest; the same is true for halogen substitution. An Et group in the 2-position of the acid less active than the propoxy deriva., allyloxy deriva. are phenoxyacetic acid, which is quite active. Amides may be more or less active than the free acids; anilides of allyloxy-phenoxyacetic acids are more active than the amides. 4-Methoxy-2-chlorophenoxyacetic acid is nearly as active as 3-indolebutyric acid, 4-methoxy-2-bromophenoxyacetic amide is also highly active. G. M. Kosolapoff

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BOKAREV, K

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Khimiya Gerbitsidov i Stimulyatorov Rosta Rasteniy (Herbicide Chemistry and Stimulators of Plant Growth, by) N. N. Mek'nikov, Yu A. Baskakov i K. S. Bokarev. Moskva, Goskhimizdat, 1954.
381 p. Diagr., Tables.
"Literatura" at the end of each chapter.

BOKAREV, K. S.

Meinikov, N. N., Baskakov, Yu. A., and Bokarev, K. S.:
Khimiya gerbitsidov i stimulyatorov rosta rastenii (Chem-
istry of Herbicides and Stimulators of Plant Growth).
Moscow: Goskhimizdat. 1954. 22 pp. Reviewed in Fiziol.
Rastenii 2, No. 6, 689-90 (1955). CH

Bokarev, K.S.

V Analysis of herbicidal preparations. K. S. Bokarev and N. N. Mel'nikov. *Khim. Prom.* 1954, No. 7, 42-5. Detn of 2,4-dichlorophenoxyacetic acid and of its BuOH ester, carried out by titration with NaOH with methyl red as indicator avoids the error caused by the usually present 2,4-dichlorophenol and gives good results. Procedures for detn of the 2 weed killers were worked out. 2,4-Dichlorophenoxyacetic acid is extd. from a dissolved and acidified sample with Et₂O, the ether is evapd. and the residue is dissolved in neutral alc. and titrated with 0.1N NaOH with methyl red as indicator. To det. free 2,4-dichlorophenoxyacetic acid in its Bu ester, a sample of the ester is dissolved in neutral EtOH, diltd. with H₂O, and titrated with NaOH with methyl red as indicator. To det. the ester, a sample is refluxed with alc. KOH. The alc. is evapd., the residue is dissolved in satd. KCl soln., the soln. is extd. with Et₂O, the ether is evapd., and the residue is dissolved in EtOH and titrated with NaOH with methyl red as indicator.

M. Hersh

Bokarev, K.S.

Chem Synthesis and physiological activity in plants of some
-aryloxyethanols and aryloxyacetones. K. S. Bokarev and
N. N. Mel'nikov. *J. Gen. Chem. U.S.S.R.* 24: T070-88
(1954)(Engl. translation).—See C.A. 49, 14078e.
B. M. R.

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Bo. Karev, K. S.

Synthesis and physiological activity in plants of some 2-aryloxyethanols and aryloxyacetones. K. S. Bo. Karev and N. N. Mel'nikov (K. A. Timiryazev (Inst. Plant Physiol. Acad. Sci. U.S.S.R., Moscow)). *Zhur. Obshchei Khim.* 24, 2014-23(1954).—Various aryloxyethanols were prepd. by refluxing $ArOH$ and $ClCH_2CH_2OH$ in aq. $NaOH$ 2 hrs. followed by extr. with $(CH_2Cl)_2$. Thus were prepd. the following $ArOCH_2CH_2OH$ (An. % yield, and phys. consts. given): 4- BrC_6H_4 , 62.9, m. 55°, b_p 147-0°; 3,4- $Cl_2C_6H_3$, 53.2, m. 65°, b_p 183-90°; 2,4,5- $Cl_3C_6H_2$, 89, m. 65°; 2- $MeOC_6H_4$, 62.3, b_p 163-4°, d₂₀ 1.1561, n_D²⁰ 1.5439; 3-isomer, 79, b_p 143°, d₂₀ 1.1531, n_D²⁰ 1.5410; 2- $EtOC_6H_4$, 65, m. 38-9°, b_p 129-30°; 3- $PrOC_6H_4$, 83.9, b_p 157°, d₂₀ 1.0867, n_D²⁰ 1.5210; 4-isomer, 70.5, m. 75°; 3- $BnOC_6H_4$, 84.3, b_p 170-2°, d₂₀ 1.0591, n_D²⁰ 1.5197; 2,4- $Cl_2(PrO)C_6H_3$, 61.7, b_p 169-71°, d₂₀ 1.1020, n_D²⁰ 1.5307; 2,4- $Cl_2(BnO)C_6H_3$, 64.5, b_p 171-2°, d₂₀ 1.1031, n_D²⁰ 1.5309; 2,4- $Cl_2(iso-AmO)C_6H_3$, 64.8, b_p 191-1°, d₂₀ 1.1319, n_D²⁰ 1.5211; 2,4- $Bi(BnO)C_6H_2$, 66.7, b_p 200-2°, d₂₀ 1.3212, n_D²⁰ 1.5935; 4,5,6- $Cl_3(MeO)C_6H_2$, 66.7, m. 94°; 2- FtO analog, 41.8, m. 77°; 2- PrO analog, 73, m. 55°, b_p 177-9°; 2- BnO analog, 71.2, b_p 189-2°, d₂₀ 1.2529, n_D²⁰ 1.5930; 2- $iso-AmO$ analog, 62.8, b_p 149-52°, d₂₀ 1.1918, n_D²⁰ 1.5378; 4,5,2- $Pr_3C_6H_2(OMe)C_6H_2$, 74.8, m. 112°; 2- BnO analog, 51, m. 88°; 2- PrO

N. J. DONAHUE

analog, 79.7, m. 64-6°; 2-BuO analog, 53, m. 53-4°, b₁ 202-4°; 2-iso-AmO analog, 45.0, b₁ 180-2°, d₂₀ 1.1508, n_D 1.5275. 2-C₁₀H₇SC₂H₄CH₂OH, 52.5%, m. 55-6°, b₁ 220-30°. In tests on repression of sprouting of radishes and hemp, the most active compds. were 2,4-Cl₂C₆H₃OCH₂CH₂OH, the 2,4,5-tri-Cl analog, p-BrC₆H₄OCH₂CH₂OH, and 2-C₁₀H₇OCH₂CH₂OH; 2,4,6-Br₂C₆H₃OCH₂CH₂OH and the penta-Cl analog were weakly active; 2-alkoxy-4,5-dihalo derivs. were very feeble, and the remaining substances were inactive. The substituted ethanols with 1-C₆H₄NC₃ gave the following 1-C₆H₄NHCO₂CH₂CH₂OR (R and m.p. given): 1-C₆H₅, 2-C₆H₅, 152°; 2-MeOC₆H₄, 137-8°; 3-isomer, 107-8°; 2-EtOC₆H₄, 131-2°; 3-PrC₆H₄, 120-1°; 4-PrOC₆H₄, 101°; 3-BzOC₆H₄, 116-17°. Phenols, ArOH (0.2 mole) treated with 0.1-0.2 mole BrCH₂Ac in 20-40 ml. Me₂CO in the presence of 0.1 mole NaOH in 20-40 ml. H₂O, the mixt. refluxed 19-20 hrs., 5% NaOH added, and the soln. extd. with C₆H₆ gave the following aryloxyacetones ArOCH₂Ac (Ar, % yield, and phys. consts. given), all of which were biologically inactive in the sprouting tests: 2-ClC₆H₄, 45, b₁ 110-15° (semicarbazone, m. 171°); 4-isomer, 60.5, m. 57°, b₂ 168-70° (semicarba-

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K. S. BAKAREN

one, m. 181-2°; 2,4-Cl₂C₆H₃, 54, m. 54°, b₁ 138-41°
 (semicarbazone, m. 184-5°); 2,4,5-Cl₃C₆H₂, 57.3, m. 110°
 (semicarbazone, m. 202°); Cl₃C₆H₂, 80, m. 105-5.6° (semi-
 carbazone, m. 193-4°, decompn.); 2-BrC₆H₄, 50.2, b₁ 150-3°
 (semicarbazone, m. 150-1°); 2,4-Cl₂(PrO)C₆H₃,
 51, m. 80°, b₁ 170-2° (semicarbazone, m. 147°); 4-FluO
 analog, 49, b₁ 174-5° (semicarbazone, m. 103°); 4,5,2-
 Cl₃(EtO)C₆H₃, 73.5, m. 54° (semicarbazone, m. 168-9°);
 2-BuO analog, 52.0, m. 69°, b₁ 155-8° (semicarbazone,
 m. 172°); 4,5,2-Br₃(MeO)C₆H₃, 68.3, m. 110° (semicar-
 bazone, m. 173-4°); 4,5,2-Br₃(PrO)C₆H₃, 65.0, m. 72°
 (semicarbazone, m. 170°); 2-PrO analog, 64.5, m. 71°
 (semicarbazone, m. 168.5°); 2-BuO analog, 81.7, m. 81°
 (semicarbazone, m. 172-3°); 2-iso-AmO analog, 73.6,
 b₁ 108-200° (semicarbazone, m. 171.5°); 2-C₁₀H₇SC₆H₄Ac,
 70.0%, m. 135° (semicarbazone, m. 100°) (cf. Stoermer, Ann.
 312, 237(1000)). 4-BrC₆H₄OCH₂Ac semicarbazone m. 197°;
 2,4,6-tri-Br analog, m. 198.5°. (2-Benzothiazylthio)acetone
 semicarbazone m. 183-3°.

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G. M. Kozolupoff

Bokarev, K. S.

USSR

Synthesis of *p*-iodophenoxyacetic acid labeled with iodine-131. K. S. Bokarev and N. N. Mel'nikov (K. A. Timiryazev Inst. Plant Physiol., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 97, 255-6 (1954). — To 0.95 g. p - $\text{ONC}_6\text{H}_4\text{OCH}_2\text{CO}_2\text{H}$ in 100 g. H_2O and 7.9 g. $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ was added a soln. of 111 g. $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ in 700 ml. H_2O and hot soln. of 400 g. $\text{Ba}(\text{OH})_2$ in 800 ml. H_2O ; the hot soln. was stirred 0.5 hr., filtered, neutralized with H_2SO_4 to methyl orange, filtered and evapd. yielding 46.2% p - $\text{H}_2\text{NC}_6\text{H}_4\text{OCH}_2\text{CO}_2\text{H} \cdot 1/2\text{H}_2\text{SO}_4$, decomp. 185-8°. This (1.62 g.) in 50 ml. H_2O and 5 ml. H_2SO_4 was cooled to 0°, treated in 1 hr. with 0.89 g. solid KNO_3 , stirred 1 hr., filtered, and the filtrate placed in a distg. flask, connected with a trap with 20% KOH , and a water pump. Under reduced pressure the solns. was treated with 1.85 g. K^{131}I in 10 ml. H_2O and the mixt. heated on a steam bath 2 hrs. After cooling and addn. of 1 g. $\text{Na}_2\text{S}_2\text{O}_3$ there was obtained a ppt. of 43.3% labeled p - $\text{IC}_6\text{H}_4\text{OCH}_2\text{CO}_2\text{H}$, m. 155° from $(\text{CH}_3\text{Cl})_2$.
G. M. Kozolapoff

BOKAREV, K. S.

USSR/Organic Chemistry -- Naturally Occurring Substances and Their Synthetic
Analogues, E-4

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61617

Author: Bokarev, K. S., Mel'nikov, N. N.

Institution: None

Title: Synthesis of Some New Glucose Esters

Original

Periodical: Zh. obshch. khimii, 1955, 25, No 12, 2242-2245

Abstract: For the purpose of a study of the mechanism of the action of derivatives of phenoxyacetic acid upon plants there have been synthesized 2,3,4,6-tetraacetyl-1-(2',4'-dichlorophenoxyacetyl)- (I) and 2,3,4,6-tetraacetyl-1-(2',4',5'-trichlorophenoxyacetyl)- glucose (II). On disacetylation of I and II with a solution of NH_3 in CH_3OH there are formed quantitatively the corresponding chlorophenoxyacetamides. Formation of similar glucose esters in plants is improbable. By boiling of a mixture of 30 g Ag-salt of 2,4-dichlorophenoxyacetic acid, 41.1 g acetobromoglucose and 150 ml

Card 1/2

USSR/Organic Chemistry - Naturally Occurring Substances and Their Synthetic
Analogues, E-3

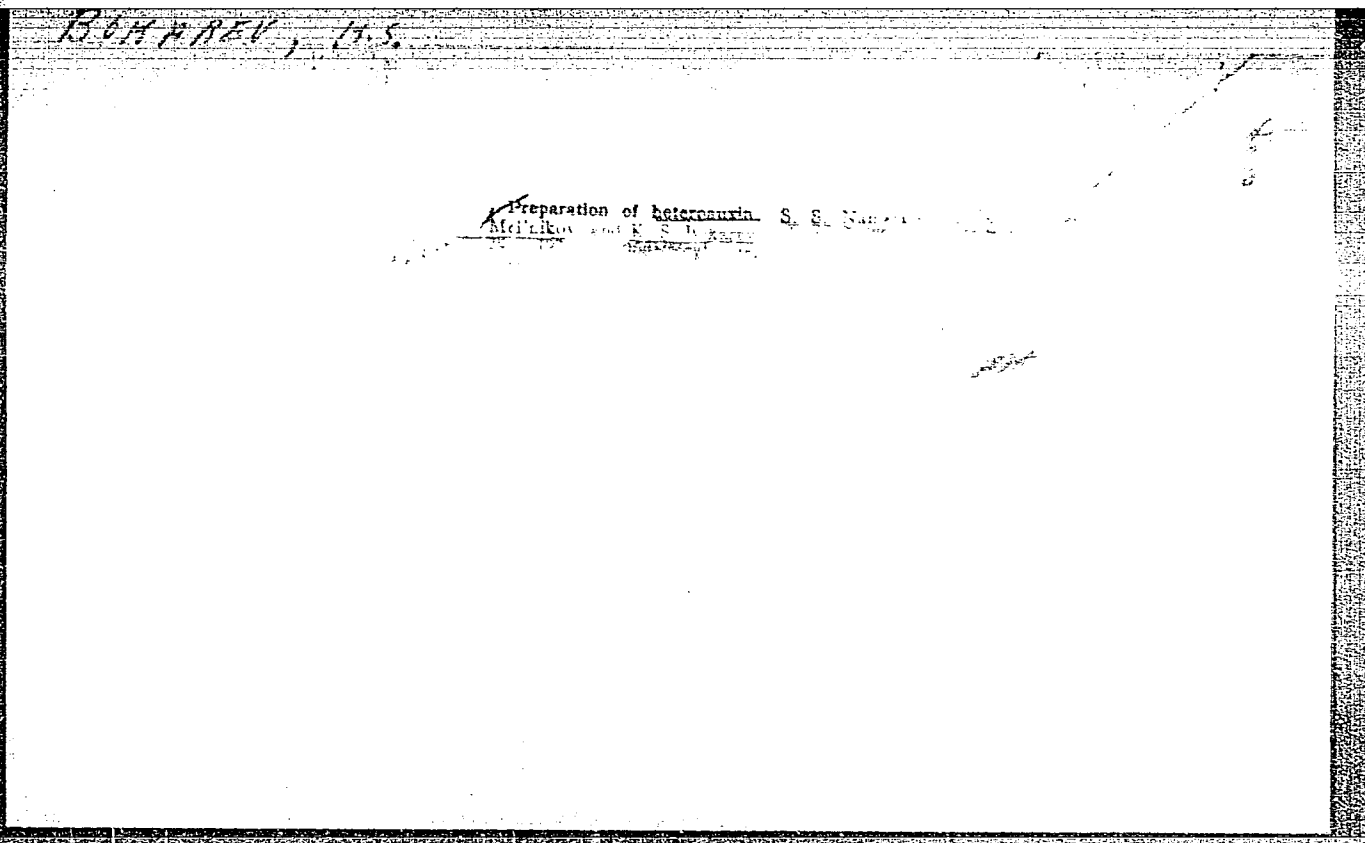
Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61617

Abstract: C_6H_6 (10 hours) I has been obtained with almost a quantitative yield,
MP 125-126° (from CH_3OH), $[\alpha]^{20}_D + 7.4^\circ$ (dioxane). Analogously
has been prepared II, yield 78.3%, MP 170-171° (from CH_3OH),
 $[\alpha]^{20}_D + 8.3^\circ$ (dioxane). I and II have β -configuration since they
are saponified by emulsion.

K. A. Timiryazev Plant Physiology Inst

Card 1/2

Synthesis of *N*-2,4,5-trichlorophenoxyacetyl amino acids.
K. S. Bekarev and N. N. Mel'nikov. *J. Gen. Chem. U.S.S.R.* 23, 2355-7 (1955) (English translation).—See *CA* 50, 9381g.
H. M. R.



BOKAREV, K.S.

Aryloxyalkylcarboxylic acids. Itogi nauki: Biol.nauki no.2:145-
201 '58. (MIRA 14:4)
(Acids, Organic)